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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AGILENT TECHNOLOGIES, INC.
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EXAMINER

MILLER, MARINA I

ART UNIT PAPER NUMBER

1631

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,611

Applicant(s)

WEBB ET AL.

Examiner

Marina Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7 and 10-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-7, 10-13, and 41-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants' submission filed on 10/31/2005 is acknowledged. Claims 1, 5-7, 10-13, and 41-49 are pending. Claims 2-4, 8-9, and 14-40 are cancelled. Claims 1, 5-7, 10-13, and 41-49 presently are under examination.

Applicants' arguments have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are applied.

Claim Rejections - 35 USC § 112

First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 5-7, 10-13, and 41-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

Claim 1, as amended, is directed to a method comprising steps of obtaining signal data from probes on a chemical array, providing a test request for reading or processing signal data from a sub-array of probes on the array, retrieving an instruction stored in a memory based on the test request, and reading or processing the signal data for the sub-array. However, a method comprising both obtaining signal data from an array and consequently reading or processing

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signal data for a sub-array, does not have support in the specification, claims, or drawings, as originally filed. Applicants do not point to support in the originally filed disclosure for the claim amendments, and none is apparent. The specification discloses a method wherein signal data are obtained (*i.e.*, read) for an array at the first location from which the array identifier, the test request, and payment information are forwarded to a second location. The instructions then are retrieved at the second location from a memory using the test request. In this embodiment, the method may include receiving at the first location from the second location the instruction for reading or processing read signal data from the array according to the received instructions. (p. 11 of the specification). In the embodiments wherein instructions include a sub-array pattern to be read and saved, signal data are not received from the array portion outside the sub-array specified in the received instruction. Therefore, this embodiment does not include acquiring signal data from all locations on the array, as it is recited in amended claim 1 (*see* p. 11 ,line 26 through p. 12, line18). For these reasons, the claims are rejected for reciting new matter.

Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5-7, 10-13, and 41-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, as amended, recites steps of obtaining signal data for a chemical array and further providing a test request for reading or processing signal data from a sub-array of probes

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on the array, retrieving an instruction stored in a memory based on the test request, and reading or processing the signal data for the sub-array. The relationship between the first step (obtaining data for an array) and the rest of the steps (*e.g.*, the step of reading signal data for a sub-array) is not clear. If signal data for the array are read (obtained), then reading the same signal data for a sub-array is duplicative. Claims 5-7, 10-13, and 41-49 depend from claim 1. As the intended limitation is not clear, claims 1, 5-7, 10-13, and 41-49 are indefinite.

Claim 1, as amended, recites “obtaining” signal data and “reading or processing” signal data. It is not clear whether “obtaining” is actually intended to mean “reading” signal data or “reading” is intended to be a different type of operation. It is further unclear whether one processes data without actually acquiring (reading) signal data, as recited in claim 1. As the intended limitation is not clear, claims 1, 5-7, 10-13, and 41-49 are indefinite.

Claim 6, as amended, recites “an instruction for processing a sub-array pattern.” It is not clear whether the limitation requires processing of signal data acquired from the sub-array of claim 1 (*see* the step of reading or processing the signal data for the array) or an instruction requires processing a specific part of the array (a sub-array) without actually specifying a manner of reading/processing. . As the intended limitation is not clear, claims 6-7 are indefinite.

Claim 7 recites “at least one of instructions comprise an indication that only signal data from feature location in the sub-array need be read or processed.” Claim 7 depends from claim 6 which recites “at least one of said instructions comprises an instruction for processing a sub-array pattern.” It is not clear what further limitation of claim 6 is intended, and therefore claim 7 is indefinite.

Claim 12 also recites “transmitting results ... from those array feature locations.” It is not clear what feature locations are intended. As the limitation recited in claim 12 is not clear for the reasons stated above, claim 12 is indefinite.

Claims 42 and 44 recite “the system” and “said system,” respectively. There is insufficient antecedent basis for these limitations in the claims. Claims 42 and 44 depend from claim 1, which does not recite “a system.” Claims 43 and 46 depend from claim 42. As the intended limitation is not clear, claims 42-43 and 46 are indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-7, 10-13, and 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattell, U.S. Patent 6, 180,351, in view of Venkatesan, U.S. Patent 6,282,550.

Claims 1-4, 6-21, and 23-40 were previously rejected. Applicants amended claims 1, 5-7, and 10-13; cancelled claims 2-4, 8-9, and 14-40; and added new claims 41-49. Applicants argue that Cattell does not disclose a test request for processing signal data from a sub-array, retrieving an instruction from a plurality of instructions stored in a memory, each instruction retrieved with a different test request, based on the test request provided, and reading/processing the signal data for the sub-array according to the retrieved instructions. Applicants' arguments have been considered, but are found not persuasive.

Cattell discloses a method for fabricating, reading, and processing an addressable chemical array (*see*, for example, col. 4, lines 11-43). The examiner maintains that Cattell does disclose processing/reading signal data from a sub-array as indicated on fig. 1-3 and col. 7, lines 35-65, wherein Cattell discloses that an array may contain multiple features (sub-arrays) which may be read/processed separately (col. 12, lines 18-26). Cattell discloses obtaining signal data from probes on a chemical array (col. 4, lines 28-32). Cattell discloses providing a test request for reading or processing signal data (array layout information provided by a user from a remote location, col. 3, lines 1-2, lines 44-46; col. 10, lines 45-53, lines 65-67; claim 1). Cattell discloses retrieving an instruction from a plurality of instructions stored in a memory, each instruction retrieved with a different test request (col. 5, lines 1-11, col. 12, line 1-35, fig. 1-3). For example, layout information (instruction) is retrieved from a memory wherein each sub-array location is accompanied by a unique identifier (fig. 1-3). The array layout information controls the array interrogation, *i.e.*, the layout indicates which array addresses (*i.e.*, sub-arrays) do/do not need to be interrogated (each test request has different instruction) (col. 12, lines 1-35). Cattell discloses reading or processing signal data for the sub-array according to retrieved instruction (layout information) (col. 12, lines 1-35; fig. 1-3). Cattell discloses that the program may also control interrogation or processing information obtained from the array (col. 5, lines 45-48; col. 12, lines 30-35). Cattell discloses transmitting results obtained from the acquired signal data (col. 12, lines 30-35). Cattell discloses providing an array identifier and retrieving an instructions based on the identifier (col. 2, lines 51 through col. 3, line 9; col. 4, line 20-22; col. 12, line 8-17).

Although Cattell does not disclose repeating providing, retrieving, reading, and retrieving instructions, forwarding payment information, receiving a quoted price for the test requested,

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account identification, and charging an account, Venkatesan does disclose a method for providing information to a customer requesting a synthesis of primers wherein the customer provides a probe identifier (fig. 6A) and requests and receives information via a network (fig. 5). Venkatesan also discloses a second user selection of a product based on the first product data provided to the user (col. 3-4) (*i.e.*, repeated instructions). Venkatesan further discloses that a provider may automatically bill a customer via the network (col. 3, line 40-49). In order to bill a customer, the provider has to create an account for the user and adjust price to the price agreed between the customer and a supplier (col.3, line 27-41). Thus, Venkatesan inherently discloses identifying an account and adjusting the account to product pricing. Venkatesan teaches selling a product to a user base upon the modified price (col. 3-4). Venkatesan teaches remote communication between a provider and a customer (fig. 5).

Motivation to combine the references was stated in the previous office action and is reiterated below:

“It would have been obvious to one skilled in the art at the time of the invention to modify the method of Cattell to communicate pricing information to and from a customer ordering a product, to create an account for billing a customer on-line, and to sell a product after a series of modifications conducted on-line, such as taught by Venkatesan, where the motivation would have been to provide efficient and less time consuming process of buying a biological product to customers, as taught by Venkatesan, col. 1.”

Thus, the examiner maintains that Cattell and Venkatesan do make the instant claims obvious, and the rejection is maintained.

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Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cattell, U.S. Patent 6, 180,351, in view of Venkatesan, U.S. Patent 6,282,550, as applied to claims 1, 5-7, 10-13, and 41-48, and further in view of Anderson, WO 01/80155.

Cattell and Venkatesan make obvious the method of claims 1, 5-7, 10-13, and 41-48, as set forth above.

Cattell and Venkatesan do not disclose labeled target molecules bound to probes on a chemical array.

Anderson discloses a method for a custom-designed biological array design and analysis wherein target molecules are labeled (p. 13, lines 28-31; p. 15, Example 1). Anderson also discloses an iterative procedure for designing an array (p. 10, lines 14-27; p. 12, lines 22-32). Anderson also discloses sub-array reading and processing (p. 9, lines 19-22; p. 10, lines 14-27; p. 12, lines 22-32; p. 13, lines 32-p. 14, lines 19).

It would have been obvious to one skilled in the art at the time of the instant invention to modify the method of Cattell and Venkatesan to use labeled target, such as taught by Anderson, where the motivation would have been to detect signals generated by hybridization between primers and a target, as taught by Anderson, p. 13, lines 15-31.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

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MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Miller whose telephone number is (571)272-6101. The examiner can normally be reached on 8-5, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph. D. can be reached on (571)272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MARJORIE A. MORAN
PRIMARY EXAMINER

Marjorie A. Moran
1/19/04

Marina Miller
Examiner
Art Unit 1631

MM